

WHAT IS CLAIMED IS:

1. An optical head characterized by a light source formed of an indirect semiconductor laser, a lens for focusing a light beam from the light source onto a medium, and a detector for detecting a reflected light beam from the medium.
2. An optical head as set forth in claim 1, characterized in that the semiconductor laser has an active layer for emitting a light beam, and an indirect semiconductor is used for the active layer.
3. An optical head as set forth in claim 1, characterized in that the semiconductor laser has a quantum well structure for emitting a light beam, the quantum well structure comprises an active layer and a barrier layer, and an indirect semiconductor material is interposed between the active layer and the barrier layer.
4. An optical head characterized by a semiconductor laser having an active layer made of an indirect semiconductor mixed crystal material, and a detector for detecting a reflected light beam from a medium.
5. An optical head characterized by a recording laser, and a reproducing laser provided independent from the recording laser, the reproducing laser being an indirect semiconductor laser.
6. An optical head as set forth in claim 1, characterized in that the indirect semiconductor has an

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active layer structure, and has a quantum well structure.

7. An optical head as set forth in claim 1, characterized in that the indirect semiconductor has an active layer structure, and has an adjacent confinement structure.

8. An optical head as set forth in claim 4, characterized in that the material of the indirect semiconductor is of a AlGaP (aluminum, Gallium and phosphor) group.

9. An optical head as set forth in claim 8, characterized in that the half-width value of exciting current for causing laser oscillation is not less than 20 meV but not greater than 400 meV in the form of optical energy range.

10. An optical head as set forth in claim 8, characterized in that the half-width value of exciting current for causing laser oscillation is not less than 6 nm but not greater than 100 nm.

11. An optical head as set forth in claim 4, characterized in that the material of the indirect semiconductor is of an SiGe (silicon germanium) group.

12. An optical head as set forth in claim 11, characterized in that the half-value width of exciting current for causing laser oscillation emits an output light beam having a continuous spectrum which is not less than 20 meV but not greater than 150 meV in the form of optical energy range.

13. An optical head as set forth in claim 11, characterized in that the half-value width of exciting current for causing laser oscillation emits an output light beam having a continuous spectrum which is not less than 13 nm but not greater than 90 nm as a room temperature (300 K).

14. An optical head as set forth in claim 4, a d.c. drive is used for driving the semiconductor laser.

15. An optical head as set forth in claim 4, characterized by an indirect semiconductor laser incorporating a multi-layer film at an end face of a resonator and serving as a light source.

16. An optical head as set forth in claim 4, characterized by a semiconductor laser made of an indirect semiconductor and serving as the light source, and a waveband pass filter for limiting the wavelength of a light beam from the semiconductor laser to be less a half-value width of 2 nm.

17. An optical head as set forth in claim 4, characterized by a semiconductor laser made of an indirect semiconductor and serving as a light source, and a cooler for lowering the temperature of a light emitting part of the semiconductor laser.

18. An optical disc apparatus using an optical head as set forth in claim 4.

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